

Date: Tuesday, 11/6/2007 3:42:00 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BLADE FITTING
Job Number : 35586	
Estimate Number : 12299	
P.O. Number :	Part Number : D3488041
This Issue : 11/6/2007 S.O. No. :	Drawing Number : D3488 / DSK101
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : MACHINED PARTS	Drawing Revision : B / D
Previous Run : 32232	Material :
Written By :	Due Date : 12/5/2007- Qty: 12 Um: Each
Checked & Approved By : <u>07/11/07</u>	
Comment : Est Rev:A New Issue 06-02-28 JLM	
Est Rev:B As per Rev B 06-03-30 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6103003	alum billet
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 12.0000 Each(s)

Alluminum Round Billet D6103-003

Batch: B35953

J-F. 07/12/31 (2)

2.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE
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Comment: MORI SEIKI CNC LATHE LARGE

1-Turn as per Dwg DSK 101 & Folio FA625

2-Deburr

J-F. 07/12/31 (12)

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J-F. 07/12/31 (2)

4.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine as per Folio FA625 & Dwg D3488

2-Deburr

J-F. 08/01/07

PTO

5.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J-F. 08/01/07






(11)

(11)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3488-041 PAR #: N/A Fault Category: Prod / Machine ^{part} NCR: Yes No DQA: D Date: 08/01/08
 QA: N/C Closed: H Date: 08.01.28

NCR: <u>35586</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/01/06	4	1 piece scrap, in the 2 nd op. the rougher pull out and break into the piece. R.L. Rougher Brake	 08/01/07	Scrap and destroy no replace Qty. <u>(81)</u>	 08/01/07	 08/01/07	 08/01/07	 08/01/07

NOTE: Date & initial all entries

Date: Tuesday, 11/6/2007 3:42:00 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 35586

Part Number: D3488041

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

32 08/01/14 (11)

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

M-L 08/01/15

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

FL 08/01/17 (11)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BK 08-01-17 (11)

10.0

ALS71032225

INSERT



Comment: Qty.: 4.0000 Each(s)/Unit Total : 48.0000 Each(s)

Pick:

Qty Part Number Description Batch

4 ALS7-1032-225 Insert M/00489

FL

11.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install Inserts as per Dwg D3488

FL 08/01/21 (11)

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

6 08/01/21 (11)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: F-P 22

M-L 08/01/21 (11)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		1-					

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 11/6/2007 3:42:00 PM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 35586

Part Number: D3488041

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

QC21

FINAL INSPECTION/W/O RELEASE



08.01.22
J

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



6 08-01-22

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 35586
Description: Blade Fitting, LH		Part Number: D3488-1
Inspection Dwg: D3488 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

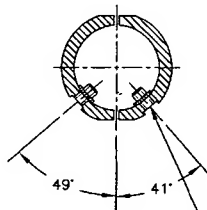
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.125	+/-0.010	.125	✓			
2.620	+/-0.010	2.624	✓			
0.793	+/-0.010	.799	✓			
1.351	+/-0.010	1.352	✓			
1.317	+/-0.010	1.310	✓			
90°	+/-0.1°	90°	✓			
1.802	+/-0.010	1.801	✓			
Ø0.508	+0.006/-0.001	Ø0.510	✓			
R0.062	+/-0.010	R0.062	✓			
1.500	+/-0.010	1.499	✓			
8.000	+0.030/-0.000	8.022	✓			
11.18	+/-0.030	11.177	✓			
Ø0.484	+0.005/-0.001	Ø0.488	✓			
1.180	+/-0.010	1.178	✓			
3.150	+/-0.010	3.150	✓			
3.070	+/-0.010	3.070	✓			
0.590	+/-0.010	.590	✓			
0.125	+/-0.010	.125	✓			
1.005	+/-0.010	1.002	✓			
3.500	+/-0.010	3.500	✓			
Ø0.297	+0.005/-0.000	Ø0.299	✓			
Ø0.430	+/-0.010	Ø0.430	✓			
0.100	+/-0.010	.101	✓			

Measured by: <i>[Signature]</i>
Date: 08/01/07

Audited by: <i>[Signature]</i>
Date: 108-02-07

Prototype Approval:	N/A
Date:	N/A

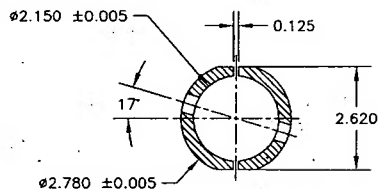
Rev	Date	Change	Revised by	Approved
A	06.03.31	New Issue	KJ/JLM <i>[Signature]</i>	<i>[Signature]</i>



SECTION B-B

0.297
C'BORE 0.430 x 0.100
INSTALL ALS4-1032-225 (OR AKS4-1032-225
OR ALS7-1032-225 OR AKS7-1032-225)
INSERTS AFTER FINISH
(4 PLACES)

4



SECTION A-A

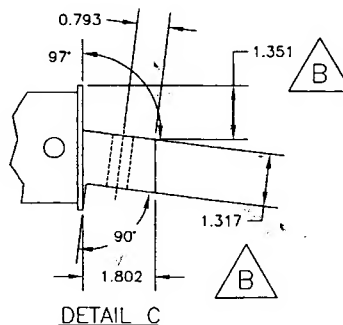
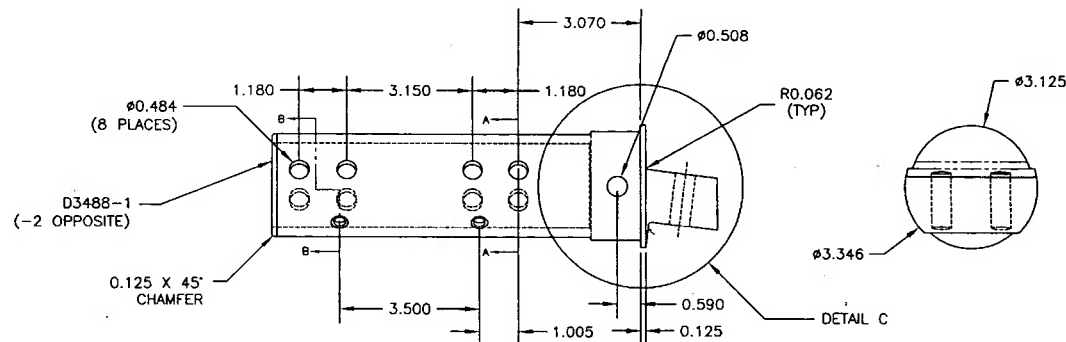
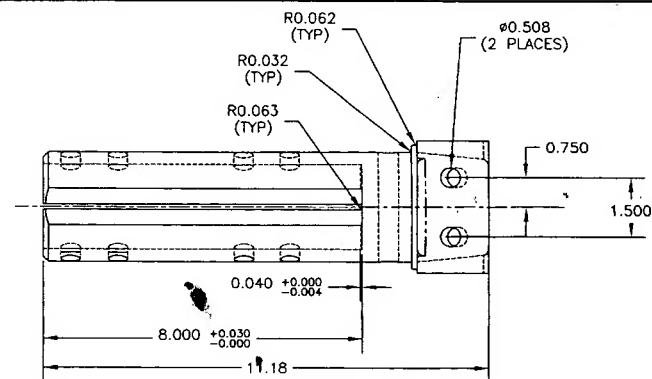
D3488-041/-042 BLADE FITTING ASSEMBLY PARTS LIST

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3488-041	BLADE FITTING ASSEMBLY (LH)
	X	D3488-042	BLADE FITTING ASSEMBLY (RH)
1		D3488-1	BLADE FITTING (LH)
	1	D3488-2	BLADE FITTING (RH)
4	4	ALS4-1032-225 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	INSERT

D3488-041/-042 BLADE FITTING

- MATERIAL: MAKE D3488-1/-2 FROM ALUMINUM 7075-T7351 ROUND BAR
PER QQ-A-225/9
(REF. DART MATERIAL SPEC M7075T73R)
- FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 095 4.3
- BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- INSTALL INSERTS AFTER POWDER COAT
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 3558



D3488-041 SHOWN (D3488-042 OPPOSITE)

RELEASED
06.03.15 PH
PER DS
ELN #739

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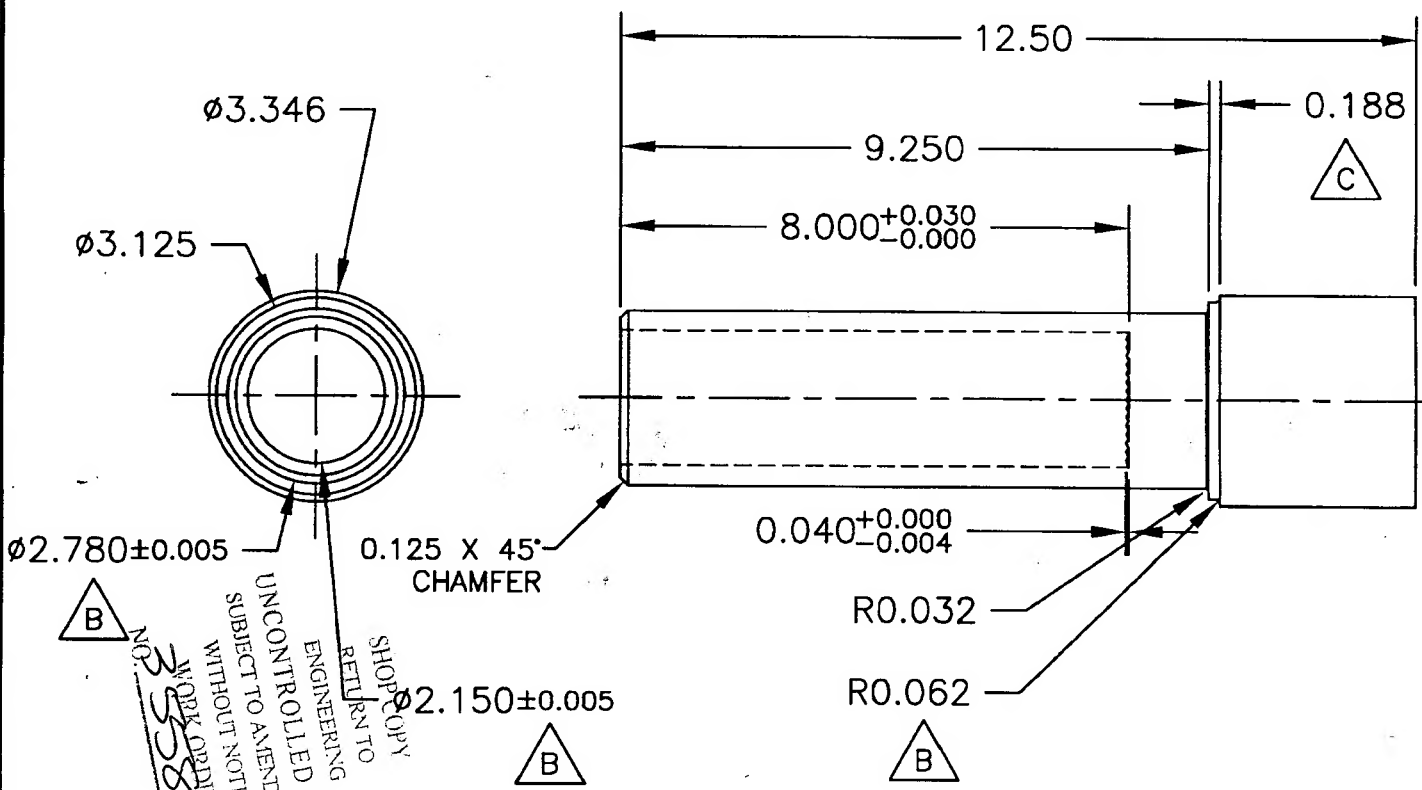
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OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE USA, INC.

B	06.03.15	CHANGE THICKNESS
A	05.12.20	NEW ISSUE
DESIGN PH	DRAWN BY PH	DART DART AEROSPACE USA, INC. PORT HADLOCK, WA
CHECKED #	APPROVED #	DRAWING NO. D3488
DATE 06.03.15	TITLE BLADE FITTING	REV. B SHEET 1 OF 1 SCALE 1:3



DESIGN	84	DRAWN BY	84	DART AEROSPACE USA, INC.
CHECKED	<i>[Signature]</i>	APPROVED	<i>[Signature]</i>	PORT HADLOCK, VA
DATE	06.05.09	DRAWING NO.	DSK 101	REV. D
		TITLE	D3488-1/-2 TURNING DETAIL	SHEET 1 OF 1
		SCALE	1:3	
A	05.12.21	NEW ISSUE		
B	06.03.02	ADD TOLERANCES AND RADIUS		
C	06.04.17	0.188 WAS 0.125		
D	06.05.09	REMOVE DIAMETER FOR CHAMFER		

06.05.09 *[Signature]*



DSK 101

- 1) MATERIAL: MAKE FROM ALUMINUM 7075-T7351 ROUND BAR PER QQ-A-225/9 (REF. DART MATERIAL SPEC M7075T73R)
- 2) FINISH: NONE
- 3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

WORK ORDER
NO. 35586
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
SHOP COPY
RETURN TO
ENGINEERING

